

**IN THE CLAIMS:**

Please cancel claims 2, 5, 6, 11, 14, 15 and 20 without prejudice.

Claims 1, 3, 4, 7-10, 12, 13, 16-19, 21 and 22 are pending in the application.

1. (Currently amended) An apparatus for bonding a transmission line to the inside diameter of a downhole tool, the apparatus comprising:

a pre-formed interface for bonding a transmission line to the inside diameter of a downhole tool, wherein the pre-formed interface is a single continuous component extending most of the length of the downhole tool and comprises:

a first surface substantially conforming to the outside contour of a transmission line; and  
a second surface substantially conforming to the inside diameter of a downhole tool.

2. (Canceled)

3. (Original) The apparatus of claim 1, wherein the first surface is bonded to the transmission line.

4. (Original) The apparatus of claim 3, wherein the first surface is bonded to the transmission line using at least one of adhesives and welding.

5. (Canceled)

6. (Canceled)

7. (Original) The apparatus of claim 1, wherein the second surface is bonded to the inside diameter of the downhole tool using at least one of adhesives and welding.

8. (Original) The apparatus of claim 1, wherein the pre-formed interface is pre-formed using at least one method selected from the group consisting of extrusion, stamping, and casting.

9. (Original) The apparatus of claim 1, wherein the pre-formed interface is configured to engage at least one recess milled in the surface of the inside diameter.

10. (Currently amended) A method for bonding a transmission line to the inside diameter of a downhole tool, the method comprising:

pre-forming an interface for bonding a transmission line to the inside diameter of a downhole tool, wherein pre-forming comprises:

forming a first surface as single continuous component extending most of the length of the downhole tool substantially conforming to the outside contour of a transmission line; and

forming a second surface substantially conforming to the inside diameter of a downhole tool; and

bonding the second surface to the inside diameter of the downhole tool.

11. (Canceled)

12. (Original) The method of claim 10, further comprising bonding the first surface to the transmission line.

13. (Original) The method of claim 12, wherein bonding further comprises bonding using at least one of adhesives and welding.

14. (Canceled)

15. (Canceled)

16. (Original) The method of claim 10, wherein bonding the second surface to the inside diameter of the downhole tool comprises bonding using at least one of adhesives and welding.

17. (Original) The method of claim 10, wherein pre-forming the interface further comprises pre-forming using at least one method selected from the group consisting of extruding, stamping, and casting.

18. (Original) The method of claim 10, further comprising engaging, by the pre-formed interface, at least one recess milled in the surface of the inside diameter.

19. A method for bonding a transmission line to the inside diameter of a downhole tool, the apparatus comprising:

positioning a transmission line near the inside wall of a downhole tool;

positioning a mold near the transmission line and the inside wall;

injecting a bonding material into the mold such that the bonding material bonds the transmission line to the inside wall; and

curing the bonding material; and

removing the mold from the bonding material.

20. (Canceled)

21. The method of claim 19, further comprising prepping the surface of at least one of the inside wall, and the transmission line, before injecting the bonding material.

22. The method of claim 19, further comprising forming gaps in the bonding material at desired intervals along the bonding material.